

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

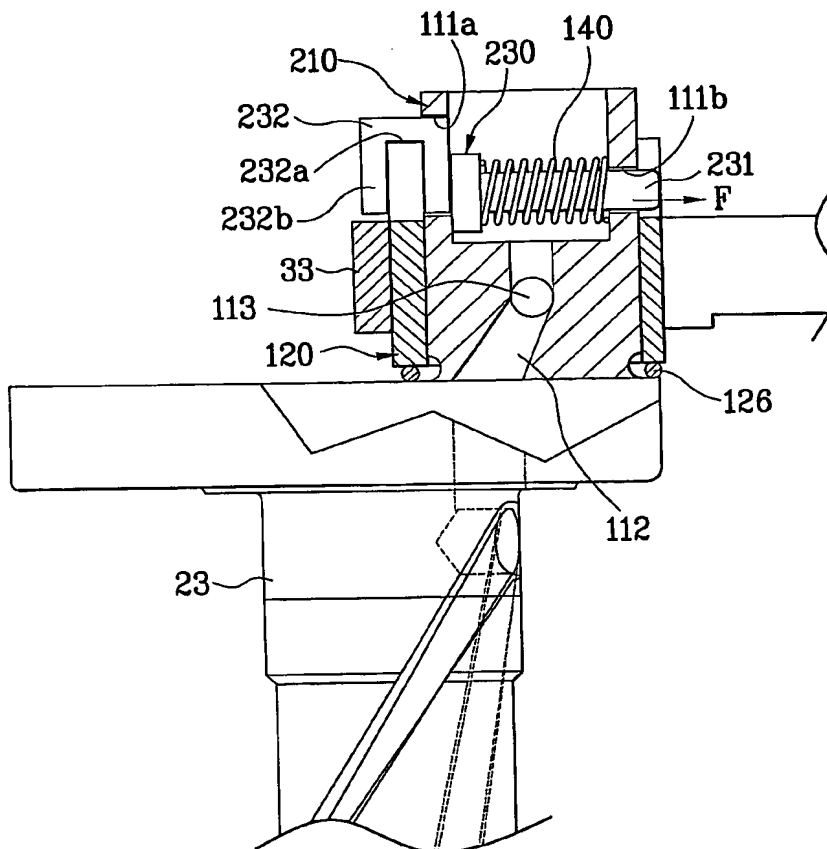
PCT

(10) International Publication Number
WO 2005/061895 A1

- (51) International Patent Classification⁷: **F04B 49/12**, (71) Applicant (for all designated States except US): **LG ELECTRONICS INC. [KR/KR]**; 20, Yoido-dong, Youngdungpo-gu, Seoul 150-721 (KR).
- (21) International Application Number: **PCT/KR2003/002821** (72) Inventors; and
- (22) International Filing Date: **23 December 2003 (23.12.2003)** (75) Inventors/Applicants (for US only): **KIM, Jong Bong [KR/KR]**; 105-1201, Hyundai APT., 3-1, Banlim-dong, Changwon-si, Gyeongsangnam-do 641-180 (KR). **KIM, Hee Hyun [KR/KR]**; 402, Sinpung Villa 2-cha, 988-10, Namsan-dong, Geumjeong-gu, Busan-si 609-340 (KR). **BAE, Young Ju [KR/KR]**; 106-503, Daedong APT., Sangnam-dong, Changwon-si, Gyeongsangnam-do 641-010 (KR). **ROH, Chul Gi [KR/KR]**; 123-2204, Daedong APT., 44-1, Sangnam-dong, Changwon-si, 641-010 Gyeongsangnam-do 641-010 (KR).
- (25) Filing Language: **Korean**
- (26) Publication Language: **English**
- (30) Priority Data:
- | | | |
|-----------------|-------------------------------|----|
| 10-2003-0094245 | 20 December 2003 (20.12.2003) | KR |
| 10-2003-0094246 | 20 December 2003 (20.12.2003) | KR |
| 10-2003-0094247 | 20 December 2003 (20.12.2003) | KR |
- (74) Agents: **BAHNG, Hae Cheol et al.**; Kims International Patent & Law Office, 15th Floor Yo Sam Building, 648-23, Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).

[Continued on next page]

(54) Title: **DUAL CAPACITY COMPRESSOR**



(57) Abstract: The present invention relates to a dual capacity compressor for preventing relative movement from taking place between components. For this, the present invention provides a dual capacity compressor including a power generating part (20) having a reversible motor (21, or 22) and a crank shaft (23) inserted in the motor (21, or 22), a compression part (30) having a cylinder (32), a piston (31), and a connecting rod (33), a crank pin (110) in an upper part of the crank shaft (23) eccentric from an axis of the crank shaft (23), an eccentric sleeve (120) rotatably fitted between the crank pin (110) and an end of the connecting rod (33), a key member (130, or 230) configured such that the key member is held at at least a part of the eccentric sleeve (120), and held at the eccentric sleeve (120) additionally during operation, for latching the eccentric sleeve (120) with the crank pin (110) positively in both direction rotation of the motor.



(81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.